

Notice of Allowability

Application No.

10/090,756

Examiner

Hung H. Lam

Applicant(s)

SASAKI, TADASHI

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the claims as filed on 10/26/05.
2. ☒ The allowed claim(s) is/are 1,3,4,2,5,6,7-10 (claims are renumbered as 1-10, respectively).
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some* c) ☐ None of the:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---|--|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

Response to Amendment

1. The amendments, filed on 10/26/05, have been entered and made of record. Claims 1-10 are allowable.
2. In view of Applicant's amendment to independent claims 1, 2, and 7 the rejections are hereby withdrawn.

Allowable Subject Matter

1. Claims 1-10 are allowed.
2. The following is an examiner's statement of reasons for allowance:
The prior art of record fails to teach or fairly suggest:

Regarding claim 1," a focusing status detecting apparatus which detects a focusing status of a taking lens with respect to a two-dimensional image pickup device for image output of a camera that obtains an image to be outputted, the focusing status detecting apparatus determining that the focusing status is one of front focus, rear focus, and in focus, the focusing status detecting apparatus comprising:

a plurality of two-dimensional image pickup devices for detecting the focusing status which detect the focusing status, the plurality of image pickup devices receiving subject light incident through the taking lens with different optical path lengths, a focusing evaluation value being obtained according to a high frequency component of each of images obtained by the plurality of image pickup devices for detecting the focusing status, the focusing status being determined according to the obtained focusing evaluation value,

wherein a number of pixels of the plurality of image pickup devices for detecting the focusing status is smaller than a number of pixels of the image pickup device for image-output, and wherein of the digital signals of the images obtained by the image pickup devices for detecting focusing status only digital signals corresponding to pixels within a predetermined focus area are extracted, so that the focusing status is detected within a frame of the image smaller than the entire frame the image to be outputted obtained by the image pickup device for image-output.”

Regarding claim 2,” a focusing status detecting apparatus which detects a focusing status of a taking lens with respect to a two-dimensional image pickup device for image output of a camera that obtains an image to be outputted, the focusing status detecting apparatus determining that the focusing status is one of front focus, rear focus, and in focus, the focusing status detecting apparatus comprising:

a plurality of two dimensional image pickup devices for detecting the focusing status which detect the focusing status, the plurality of image pickup devices receiving subject light incident through the taking lens with different optical path lengths, a focusing evaluation value

being obtained according to a high frequency component of each of images obtained by the plurality of image pickup devices for detecting the focusing status, the focusing status being determined according to the obtained focusing evaluation value,

wherein an image pickup size of the plurality of image pickup devices for detecting the focusing status is smaller than an image pickup size of the image pickup device for image output, and wherein of the digital signals of the images obtained by the image pickup devices for detecting focusing status only digital signals corresponding to pixels within a predetermined focus area are extracted, so that the focusing status is detected within a frame of the image smaller than the entire frame of the image to be outputted obtained by the image pickup device for image-output.”

Regarding claim 7, a focusing status detecting apparatus which detects a focusing status of a taking lens with respect to a first image pickup device for image-output of a camera that obtains an image to be outputted, the focusing status detecting apparatus adapted to determine whether the focusing status is front focus, rear focus, or in focus, the focusing status detecting apparatus comprising:

a plurality of second image pickup devices for detecting the focusing status by detecting a two dimensional image, the plurality of second image pickup devices receiving light incident through the taking lens with different optical path lengths, a focusing evaluation value being obtained according to a high frequency component of each of images obtained by the plurality of first image pickup devices, the focusing status being determined according to the obtained focusing evaluation value,

wherein a number of pixels of the plurality of second image pickup devices is smaller than a number of pixels of the first image pickup device, and the focusing status is detected within a frame of the image smaller than the entire frame of the image to be outputted obtained by the first image pickup device.”

Regarding claims 3-6 and 8-10, the claims are allowed as being dependent of claims 1,2 and 7, respectively.

Conclusion


3. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled “Comments on Statement of Reasons for Allowance.” Any inquiry concerning this communication or earlier communications from the examiner should be directed to Hung H. Lam whose telephone number is 571-272-7367. The examiner can normally be reached on Monday - Friday 8AM - 5PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner’s supervisor, David Ometz can be reached on 571-272-7593. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

HL

11/09/05



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